

This listing of the claims replaces all prior versions in the application.

**Listing of Claims:**

1. (Currently Amended) An inflatable blood pressure cuff assembly comprising:  
an inflatable elongate cuff member having opposing long edges and opposing short edge portions with an inflatable fluid chamber therein; and  
a resilient sleeve attached to a respective one of the opposing short edge portions of the inflatable elongate cuff member, wherein the sleeve comprises at least one substantially longitudinally extending rib support member, wherein the sleeve has a body sized and configured to elastically expand to snugly and substantially conformably fit on a limb of a patient prior to inflation of the cuff member whereby the at least one rib is configured to inhibit the sleeve from rolling up and/or down the limb of the patient.
2. (Original) A blood pressure cuff assembly according to Claim 1, wherein the at least one rib support member has an elongate flexible body configured to inhibit an upper edge portion of the sleeve from rolling down when in position on a user.
3. (Original) A blood pressure cuff assembly according to Claim 1, wherein the sleeve comprises at least one rib channel sized and configured to hold the at least one rib support member therein.
4. (Original) A blood pressure cuff assembly according to Claim 1, wherein the at least one rib support member is a plurality of laterally spaced apart rib support members configured to inhibit an upper edge portion of the sleeve from rolling down when in position on a user.
5. (Original) A blood pressure cuff assembly according to Claim 1, wherein the sleeve is air permeable and comprises a fabric that includes stretch fibers.

6. (Original) A blood pressure cuff assembly according to Claim 1, wherein the sleeve has a closed perimeter configuration defining an aperture extending in the axial direction, wherein the sleeve aperture is sized and configured to stretch to receive a limb of a patient therein during use.

7. (Original) A blood pressure cuff assembly according to Claim 6, wherein the sleeve aperture has a first configuration with a first width during periods of non-use and a second configuration with an expanded second width when in position on a patient, wherein, in the second configuration, the sleeve is substantially conformable to and resides securely against a desired portion of the limb of the patient with sufficient compressive force so that it is able to maintain its desired longitudinal position to thereby inhibit slippage during use.

8. (Original) A blood pressure cuff assembly according to Claim 5, wherein the sleeve comprises nylon fibers.

9. (Original) A blood pressure cuff assembly according to Claim 5, wherein the sleeve comprises spandex fibers.

10. (Currently Amended) A blood pressure cuff assembly according to Claim 5, wherein the sleeve has opposing upper and lower edge portions, and wherein, in position on a patient, the sleeve is configured to have an elastic lateral stretch of at least about 15% at the lower edge portion to provide a the second configuration width.

11. (Currently Amended) A blood pressure cuff assembly according to Claim 10, wherein the sleeve elastically stretches is configured to accommodate patients having limbs that vary in width by up to at least about 150%.

12. (Original) A blood pressure cuff assembly according to Claim 11, wherein the sleeve is sized and configured to accommodate patients having limbs that vary in width between about 100-205%.

13. (Original) A blood pressure cuff assembly according to Claim 1, wherein the sleeve has a frustoconical shape.

14. (Original) A blood pressure cuff assembly according to Claim 1, wherein the cuff member is bladderless.

15. (Original) A blood pressure cuff assembly according to Claim 1, wherein the cuff member comprises a pouch and an inflatable bladder that is configured to reside therein.

16. (Original) A blood pressure cuff assembly according to Claim 15, wherein the sleeve is formed of a fabric comprising nylon as a major constituent and spandex as a minor constituent.

17. (Currently Amended) A blood pressure cuff assembly according to Claim 1, wherein, in position, the sleeve is configured to define a first closed member before the cuff member is wrapped over the sleeve and the cuff member defines a second closed member after the cuff member is wrapped over the sleeve, and wherein the sleeve comprises a sensor chamber.

18. (Original) A blood pressure cuff assembly according to Claim 17, wherein the sleeve comprises a sensor held in the sensor chamber.

19. (Original) A blood pressure cuff assembly according to Claim 17, wherein the sleeve comprises upper and lower edge portions, and wherein the sensor chamber is located proximate the lower edge portion.

20. (Original) A blood pressure cuff assembly according to Claim 19, wherein the sleeve sensor chamber has a lower edge portion that is seamless.

21. (Currently Amended) ~~A blood pressure cuff assembly according to Claim 20,~~  
An inflatable blood pressure cuff assembly comprising:  
an inflatable elongate cuff member having opposing long edges and opposing short  
edge portions with an inflatable fluid chamber therein; and  
a resilient sleeve attached to a respective one of the opposing short edge portions of  
the inflatable elongate cuff member, wherein the sleeve comprises at least one rib support  
member,  
wherein the sleeve comprises upper and lower edge portions, and wherein a sensor  
chamber is located proximate the lower edge portion, wherein the sleeve sensor chamber has  
a lower edge portion that is seamless, and  
wherein the sleeve sensor chamber has a lower edge portion that is open.

22. (Original) A blood pressure cuff assembly according to Claim 19, wherein the sleeve further comprises a cable channel in communication with the sensor chamber.

23. (Original) A blood pressure cuff assembly according to Claim 22, wherein the sleeve cable channel is curvilinear.

24. (Currently Amended) ~~A blood pressure cuff assembly according to Claim 23,~~  
An inflatable blood pressure cuff assembly comprising:  
an inflatable elongate cuff member having opposing long edges and opposing short  
edge portions with an inflatable fluid chamber therein; and  
a resilient sleeve attached to a respective one of the opposing short edge portions of  
the inflatable elongate cuff member, wherein the sleeve comprises at least one rib support  
member,

wherein the sleeve comprises upper and lower edge portions, and wherein a sensor chamber is located proximate the lower edge portion,

wherein the sleeve further comprises a curvilinear cable channel in communication with the sensor chamber,

wherein the sleeve cable channel includes an intermediate segment that is arcuate, a lower first segment that is substantially longitudinal, and an upper segment above the arcuate segment that includes lateral directional components.

25. (Original) A blood pressure cuff assembly according to Claim 24, further comprising a sensor and a cable attached to the sensor, wherein the sensor is held proximate a lower portion of the sleeve and the cable is directed to travel through the channel and exit the cuff assembly proximate an upper portion of the sleeve.

26. (Original) A blood pressure cuff assembly according to Claim 1, wherein the sleeve is formed of an anisotropic material.

27. (Currently Amended) A blood pressure cuff assembly according to Claim 1, wherein the sleeve is attached to the cuff member in a releasably detachable manner, and is configured to reside against the limb of the patient with the cuffed wrapped thereabout during use.

28. (Original) A blood pressure cuff assembly according to Claim 25, wherein the sleeve is configured as a single-use disposable member.

29. (Original) A blood pressure cuff assembly according to Claim 1, wherein the sleeve is fixedly attached to the cuff member.

30. (Original) A blood pressure cuff assembly according to Claim 1, wherein the sleeve has opposing first and second short end portions, and wherein the first end portion is

configured to releaseably attach to the cuff member and/or the second short end portion of the sleeve.

31. (Original) A blood pressure cuff assembly according to Claim 1, wherein the cuff member and sleeve are configured to accommodate both the left and right arms of patients.

32. (Original) A blood pressure cuff assembly according to Claim 1, wherein the assembly is configured for ambulatory blood pressure measurements.

33. (Original) A blood pressure cuff assembly according to Claim 1, wherein the assembly is configured for stress test blood pressure measurements.

34. (Currently Amended) An inflatable blood pressure cuff assembly comprising:  
an inflatable elongate cuff member having opposing long edges and opposing short edge portions with a fluid chamber therein, in operation, the short edge portions being configured to wrap about a body portion of a user and connect to each other; and  
a resilient sleeve configured to reside under the wrapped cuff member, wherein the sleeve comprises at least one substantially axially extending rib support member, and wherein at least a major portion of the sleeve is configured to elastically expand to snugly and substantially conformably fit on a limb of a patient.

35. (Original) A blood pressure cuff assembly according to Claim 34, wherein the at least one rib support member has an elongate flexible body configured to inhibit an upper edge portion of the sleeve from rolling down when in position on a user.

36. (Original) A blood pressure cuff assembly according to Claim 34, wherein the sleeve is configured with at least one rib channel sized and configured to hold the at least one rib support member therein.

37. (Original) A blood pressure cuff assembly according to Claim 34, wherein the at least one rib support member is a plurality of laterally spaced apart rib support members configured to inhibit an upper edge portion of the sleeve from rolling down when in position on a user.

38. (Original) A blood pressure cuff assembly according to Claim 34, wherein the sleeve remains unattached to the cuff member during operation.

39. (Original) A blood pressure cuff assembly according to Claim 34, wherein the sleeve is releasably attachable to one of the short edge portions of the elongate cuff member.

40. (Original) A blood pressure cuff assembly according to Claim 34, wherein the sleeve is fixedly attached to the elongate cuff member.

41. (Original) A blood pressure cuff assembly according to Claim 34, wherein the sleeve includes opposing first and second short end portions, and wherein the first end portion is configured to releaseably attach to the cuff member and/or the sleeve second end portion.

42-53 (Canceled)

54. (Currently Amended) An automated blood pressure monitoring system, comprising:

a plurality of inflatable blood pressure cuff assemblies, each sized and configured to accommodate a different patient size range, each cuff assembly comprising an elongate cuff member having opposing long edges and opposing short edge portions with an inflatable fluid chamber therein and a resilient sleeve having a predetermined patient size range that is attachable and/or attached to a respective one of the opposing short edge portions of the inflatable elongate cuff member, wherein the sleeve comprises at least one substantially axially extending rib support member, and wherein the sleeve has a body sized and

configured to elastically expand to snugly and substantially conformably fit on a limb of a patient prior to closing the cuff member about the limb of the patient whereby the at least one rib is configured to inhibit the sleeve from rolling up and/or down the limb of the patient;

an inflation unit in fluid communication with a selected one of the blood pressure cuffs and configured to generate a pressure sufficient to restrict blood flow in a selected artery of a patient proximate the sleeve and the blood pressure cuff;

means for releasing the inflation pressure in the blood pressure cuff; and

means for detecting a signal corresponding to blood pressure measurements of the patient.

55. (Original) A system according to Claim 54, wherein the sleeves are fixedly attached to the corresponding cuff members.

56. (Original) A system according to Claim 54, wherein the sleeves are releasably attached to the cuff members.

57. (Currently Amended) A system according to Claim 56, wherein one short edge portion of the opposing sleeve short edge portions is configured to be releaseably attachable to the other opposing sleeve short edge portion and/or the cuff member to define [[as]] a closed sleeve having an axially extending aperture extending shape.

58. (Original) A system according to Claim 54, wherein the at least one rib support member has an elongate flexible body configured to inhibit an upper edge portion of the sleeve from rolling down when in position on a user.

59. (Original) A system according to Claim 54, wherein the sleeve comprises at least one rib channel sized and configured to hold the at least one rib support member therein.

60. (Original) A system according to Claim 59, wherein the at least one rib support member is a plurality of laterally spaced apart rib support members configured to inhibit an upper edge portion of the sleeve from rolling down when in position on a user.

61. (Original) A system according to Claim 54, further comprising a kit of replacement sleeves that are configured to be individually selectively releaseably attachable to the blood pressure cuff members.

62. (Original) A system according to Claim 61, wherein the sleeves are arranged in different predetermined sizes and are configured to be disposable single-use sleeves.

63. (Original) A system according to Claim 54, wherein the system is an ambulatory blood pressure measurement system.

64. (Original) A system according to Claim 54, wherein the system is a stress test blood pressure measurement system.

65. (New) A blood pressure cuff assembly according to Claim 1, wherein the at least one rib projects inwardly toward skin of the limb of the patient inside the wrapped cuff.

66. (New) A blood pressure cuff assembly according to Claim 1, wherein, in position, the sleeve is configured to define a first closed member before the cuff member is wrapped over the sleeve and the cuff member defines a second closed member after the cuff member is wrapped over the sleeve.

67. (New) A blood pressure cuff assembly according to Claim 34, wherein the at least one rib projects inwardly toward skin of the limb of the patient inside the wrapped cuff.

68. (New) A blood pressure cuff assembly according to Claim 34, wherein, in position, the sleeve is configured to define a first closed member before the cuff member is

Attorney Docket No. 9354.2IP  
Application Serial No. 10/705,364  
Filed: November 10, 2003  
Page 11

wrapped over the sleeve and the cuff member defines a second closed member after the cuff member is wrapped over the sleeve.

69. (New) A system according to Claim 54, wherein the at least one rib projects inwardly toward skin of the limb of the patient inside the wrapped cuff.

70. (New) A system according to Claim 54, wherein, in position, the sleeve is configured to define a first closed member before the cuff member is wrapped over the sleeve and the cuff member defines a second closed member after the cuff member is wrapped over the sleeve.